



Massachusetts Department of Environmental Protection
Source Water Assessment and Protection (SWAP) Report
for
Erving Water Department

What is SWAP?

The Source Water Assessment Program (SWAP), established under the federal Safe Drinking Water Act, requires every state to:

- inventory land uses within the recharge areas of all public water supply sources;
- assess the susceptibility of drinking water sources to contamination from these land uses; and
- publicize the results to provide support for improved protection.

Susceptibility and Water Quality

Susceptibility is a measure of a water supply's potential to become contaminated due to land uses and activities within its recharge area.

A source's susceptibility to contamination does *not* imply poor water quality.

Water suppliers protect drinking water by monitoring for more than 100 chemicals, disinfecting, filtering, or treating water supplies, and using source protection measures to ensure that safe water is delivered to the tap.

Actual water quality is best reflected by the results of regular water tests. To learn more about your water quality, refer to your water supplier's annual Consumer Confidence Reports.

Table 1: Public Water System Information

| | |
|----------------------|-------------------------|
| <i>PWS Name</i> | Erving Water Department |
| <i>PWS Address</i> | 12 Main Street |
| <i>City/Town</i> | Erving |
| <i>PWS ID Number</i> | 1091000 |
| <i>Local Contact</i> | Andrew Tessier |
| <i>Phone Number</i> | (978) 544-3636 x100 |

Introduction

We are all concerned about the quality of the water we drink. Drinking water wells may be threatened by many potential contaminant sources, including storm runoff, road salting, and improper disposal of hazardous materials. Citizens and local officials can work together to better protect these drinking water sources.

Purpose of this report:

This report is a planning tool to support local and state efforts to improve water supply protection. By identifying land uses within water supply protection areas that may be potential sources of contamination, the assessment helps focus protection efforts on appropriate best management practices (BMPs) and drinking water source protection measures.

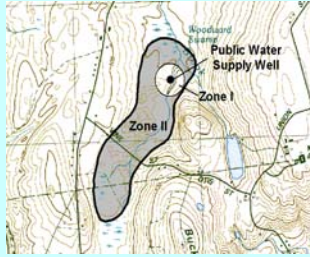
Refer to Table 3 for Recommendations to address potential sources of contamination. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

This report includes the following sections:

1. Description of the Water System
2. Land Uses within Protection Areas
3. Source Water Protection Conclusions and Recommendations
4. Appendices

What is a Protection Area?

A well's water supply protection area is the land around the well where protection activities should be focused. Each well has a Zone I protective radius and a Zone II protection area.



Glossary

Aquifer: An underground water-bearing layer of permeable material that will yield water in a usable quantity to a well.

Hydrogeologic Barrier: An underground layer of impermeable material (i.e. clay) that resists penetration by water.

Recharge Area: The surface area that contributes water to a well.

Zone I: The area closest to a well; a 100 to 400 foot radius proportional to the well's pumping rate. This area should be owned or controlled by the water supplier and limited to water supply activities.

Zone II: The primary recharge area for the aquifer. This area is defined by hydrogeologic studies that must be approved by DEP. Refer to the attached map to determine the land within your Zone II.

Section 1: Description of the Water System

Zone II #: 448

Susceptibility: High

| Well Names | Source IDs |
|------------|-------------|
| Well #1 | 1091000-01G |

The Town of Erving is a small, rural community that began as manufacturing/industrial community along the Miller's River. Much of the community is hilly with the bulk of the development along the river valley. Erving Water Department is served by one well (1091000-01G). Well #1 is a 12 by 24-inch diameter, gravel packed well, 52-foot in depth. The well has an approved pumping rate of 260 gallons per minute (0.37 millions of gallons per day) based on an extended duration pumping test and historical pumping data. The Zone II, primary recharge area was delineated as part of the SWAP program. The well is located in an unconfined, stratified drift aquifer at the base of a delta of glacial origin. There is no evidence of a confining unit such as clay in the vicinity of the well. Wells located in this type of aquifer are considered to have a high vulnerability to contamination due to the absence of hydrogeologic barriers (i.e. clay) that can prevent contaminant migration. The bedrock in the area is mapped as the Poplar Mountain gneiss formation of the Middle Paleozoic age; a dark-gray, well-foliated, micaceous gneiss of fairly complex composition. Please refer to the attached map to view the boundaries of the Zone II.

The water quality data from the well periodically shows fluctuating levels of sodium. There are multiple roads and two state highways located within the Zone II, with Route 2 located approximately 500 feet from the well. Sodium hydroxide is added to the water to buffer the pH for corrosion control prior to distribution. For current information on monitoring results and treatment, please contact the Public Water System contact person listed above in Table 1 for a copy of the most recent Consumer Confidence Report.

Section 2: Land Uses in the Protection Areas

The Zone II for Erving is a mixture of forest, residential, light agricultural and light commercial land uses (refer to attached map for details). Land uses and activities that are potential sources of contamination are listed in Table 2, with further detail provided in the Table of Regulated Facilities and Table of Underground Storage Tanks in Appendix B.

Key Land Uses and Protection Issues include:

1. Nonconforming Zone I
2. Residential land uses
3. Transportation corridors
4. Hazardous materials storage and use
5. Wastewater Treatment Plant
6. Oil or hazardous material contamination sites
7. Railroad Right-of-Way
8. Comprehensive wellhead protection planning
9. Agricultural Activities

The overall ranking of susceptibility to contamination for the system is high, based on the presence of at least one high threat land use within the water supply protection areas, as seen in Table 2.

1. Nonconforming Zone I – The Zone I for Well #1 encompasses a 400-foot radial area around the wellhead. Massachusetts drinking water regulations (310 CMR 22.00 Drinking Water) requires public water suppliers to own the Zone I, or control the Zone I through a conservation restriction. Only water supply activities are allowed in the Zone I. However, many public water supplies were developed prior to the Department's regulations and contain non water supply activities such as homes and public roads. The Zone I for the well in this case includes two residences, a local road, and State Route 2 is just outside of the Zone I.

Zone I Recommendations:

- ✓ To the extent possible, remove all non-water supply activities from the Zone I to comply with DEP's Zone I requirements.
- ✓ Use BMPs for the storage, use, and disposal of hazardous materials such as water supply chemicals and maintenance chemicals.
- ✓ Do not use or store pesticides, fertilizers or road salt within the Zone I.
- ✓ Keep any new non water supply activities out of the Zone I.

2. Residential Land Uses – Approximately 23% of the Zone II consists of residential areas. Public sewer services most of the area, but there are still some septic systems in use within the Zone II. If managed improperly, activities associated with residential areas can contribute to drinking water contamination. Common potential sources of contamination include:

- **Septic Systems** – Improper disposal of household hazardous chemicals to septic systems is a potential source of contamination to the groundwater because septic systems lead to the ground. If septic systems fail or are not properly maintained they could be a potential source of microbial contamination.
- **Household Hazardous Materials** - Hazardous materials may include automotive wastes, paints, solvents, pesticides, fertilizers, and other substances. Improper use, storage, and disposal of chemical products used in homes are potential sources of contamination.
- **Heating Oil Storage** - If managed improperly, Underground and Aboveground Storage Tanks (UST and AST) can be potential sources of contamination due to leaks or spills of the fuel oil they store.

- **Stormwater** – Catch basins transport stormwater from roadways and adjacent properties to the ground. As flowing stormwater travels, it picks up debris and contaminants from streets and lawns. Common potential contaminants include lawn chemicals, pet waste, and contaminants from automotive leaks, maintenance, washing, or accidents.

Residential Land Use Recommendations:

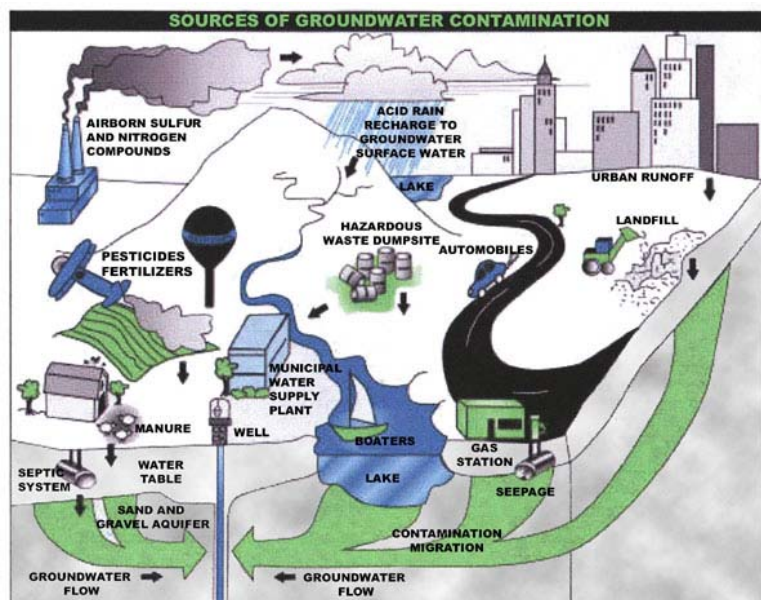
- ✓ Educate residents on best management practices (BMPs) for protecting water supplies. Distribute the fact sheet "Residents Protect Drinking Water" available in Appendix A and on www.mass.gov/dep/brp/dws/protect.htm, which provides BMPs for common residential issues.
- ✓ Work with planners to control new

**Benefits
of Source Protection**

Source Protection helps protect public health and is also good for fiscal fitness:

- Protects drinking water quality at the source
- Reduces monitoring costs through the DEP Waiver Program
- Treatment can be reduced or avoided entirely, saving treatment costs
- Prevents costly contamination clean-up
- Preventing contamination saves costs on water purchases, and expensive new source development

Contact your regional DEP office for more information on Source Protection and the Waiver Program.



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- residential developments in the water supply protection areas.
- ✓ Promote BMPs for stormwater management and pollution controls.

3. Transportation Corridors - Route 2 runs just outside of the Zone I and through the Zone II just east of the wells. Route 63 runs along the eastern boundary and has catchbasins that discharge into a brook flowing past the well. Local roads are common throughout the Zone II. Erving has water quality data demonstrating seasonally increased levels of sodium in the water supply. The Massachusetts Highway Department has designated Route 2 a low salt area, however, Route 63 is not.

Roadway construction, maintenance, and typical highway use can all be potential sources of contamination. Accidents can lead to spills of gasoline and other potentially dangerous transported chemicals. Roadways are frequent sites

for illegal dumping of hazardous or other potentially harmful wastes. De-icing materials, automotive chemicals and other debris on roads are picked up by stormwater and wash in to catchbasins.

Transportation Corridor Recommendations:

- ✓ Map local stormwater drains and the drainage system along transportation corridors; request a copy of Massachusetts Highway Department's maps and catch basin maintenance program. Wherever possible, ensure that drains discharge stormwater outside of the Zone II. For instance, request the State Highway Department redirect the Route 63 and Route 2 catch basins to flow outside of the Zone II or remotely from the well. The storm drains from the northern section of Route 63 discharge through a swale to the brook flowing past the well. Contact the Clean State Initiative coordinator Rick Larson 413-755-2207 for assistance.
- ✓ Work with the Town and State to have catch basins inspected, maintained, and cleaned on a regular schedule. Street sweeping reduces the amount of potential contaminants in runoff.
- ✓ Work with local emergency response teams to ensure that any spills within the Zone II can be effectively contained.
- ✓ If storm drainage maps are available, review the maps with emergency response teams. If maps aren't yet available, work with town officials to investigate mapping options such as the upcoming Phase II Stormwater Rule requiring some communities to complete stormwater mapping.

4. Hazardous Materials Storage and Use – Two percent of the land area within the Zone II is commercial or

industrial land uses. Erving's Waste Water Treatment Plant is located on the western edge of the Zone II. Many small businesses and industries use hazardous materials, produce hazardous waste products, and/or store large quantities of hazardous materials in UST/AST. If hazardous materials are improperly stored, used, or disposed, they become potential sources of contamination. Hazardous materials should never be disposed of to a septic system or floor drain leading directly to the ground.

Hazardous Materials Storage and Use Recommendations:

- ✓ Educate local businesses on best management practices for protecting water supplies. Distribute the fact sheet "Businesses Protect Drinking Water" available in Appendix A and on www.mass.gov/dep/brp/dws/protect.htm, which provides BMP's for common business issues.
- ✓ Work with local businesses to register those facilities that are unregistered generators of hazardous waste or waste oil. Partnerships

What are "BMPs?"

Best Management Practices (BMPs) are measures that are used to protect and improve surface water and groundwater quality. BMPs can be structural, such as oil & grease trap catch basins, nonstructural, such as hazardous waste collection days or managerial, such as employee training on proper disposal procedures.

Source Protection Decreases Risk

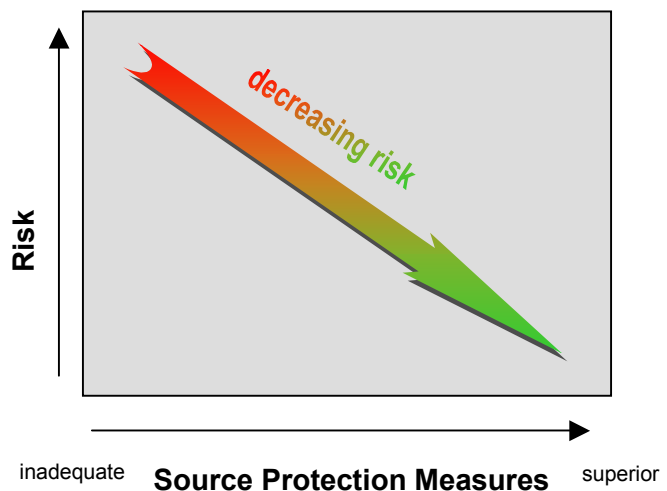


Figure 2: Risk of contamination decreases as source protection increases. This is true for public water systems of any susceptibility ranking, whether High, Moderate, or Low.

Potential Source of Contamination vs. Actual Contamination

The activities listed in Table 2 are those that typically use, produce, or store contaminants of concern, which, if managed improperly, are potential sources of contamination (PSC).

It is important to understand that a release may never occur from the potential source of contamination provided facilities are using best management practices (BMPs). If BMPs are in place, the actual risk may be lower than the threat ranking identified in Table 2. Many potential sources of contamination are regulated at the federal, state and/or local levels, to further reduce the risk.

Table 2: Land Use in the Protection Areas (Zones I and II)

For more information, refer to Appendix B: Regulated Facilities within the Water Supply Protection Area

| Land Uses | Quantity | Threat | Potential Contaminant Sources* |
|--|------------|--------|---|
| Agricultural | | | |
| Forestry Operation | Proposed | L | Erosion, equipment maintenance materials: leaks, spills, or improper handling; road building |
| Livestock Operations | 1 | M | Manure (microbial contaminants): improper handling |
| Commercial | | | |
| Car/Truck/Bus Washes | 1 | L | Vehicle wash water, soaps, oils, greases, metals, and salts: improper management |
| Bus and Truck Terminals | 1 | H | Fuels and maintenance chemicals: spills, leaks, or improper handling |
| Railroad Tracks | Throughout | H | Herbicides: over-application or improper handling; fuel storage, transported chemicals, and maintenance chemicals: leaks or |
| Industrial | | | |
| Hazardous Waste Storage, Treatment and | 1 | H | Hazardous materials: spills, leaks, or improper handling or storage |

Notes:

1. When specific potential contaminants are not known, typical potential contaminants or activities for that type of land use are listed. Facilities within the watershed may not contain all of these potential contaminant sources, may contain other potential contaminant sources, or may use Best Management Practices to prevent contaminants from reaching drinking water supplies.
2. For more information on regulated facilities, refer to Appendix B: Regulated Facilities within the Water Supply Protection Area information about these potential sources of contamination.
3. For information about Oil or Hazardous Materials Sites in your protection areas, refer to Appendix C: Tier Classified Oil and/or Hazardous Material Sites.

* **THREAT RANKING** - The rankings (high, moderate or low) represent the relative threat of each land use compared to other PSCs. The ranking of a particular PSC is based on a number of factors, including: the type and quantity of chemicals typically used or generated by the PSC; the characteristics of the contaminants (such as toxicity, environmental fate and transport); and the behavior and mobility of the pollutants in soils and groundwater.

| Activities | Quantity | Threat* | Potential Source of Contamination |
|---|------------|---------|--|
| Residential | | | |
| Fuel Oil Storage (at residences) | Numerous | M | Fuel oil: spills, leaks, or improper handling |
| Lawn Care / Gardening | Numerous | M | Pesticides: over-application or improper storage and disposal |
| Septic Systems / Cesspools | Numerous | M | Hazardous chemicals: microbial contaminants, and improper disposal |
| Miscellaneous | | | |
| Aboveground Storage Tanks | Numerous | M | Materials stored in tanks: spills, leaks, or improper handling |
| Aquatic Wildlife | History of | L | Microbial contaminants |
| Fire Training Facilities | 1 | M | Fuels and other chemicals: improper use or storage |
| NPDES Locations | 1 | L | Hazardous material and wastes: improper disposal |
| Oil or Hazardous Material Sites | 5 | -- | Tier Classified Oil or Hazardous Materials Sites are not ranked due to their site-specific character. Individual sites are identified in Appendix B. |
| Road And Maintenance Depots | 1 | M | Deicing materials, automotive fluids, fuel storage, and other chemicals: spills, leaks, or improper handling or storage |
| High School | 1 | L | Fuel oil, laboratory, art, photographic, machine shop, and other chemicals: spills, leaks, or improper handling or storage |
| Small quantity hazardous waste generators | 1 | M | Hazardous materials and waste: spills, leaks, or improper handling or storage |
| Stormwater Drains/ Retention Basins | Numerous | L | Debris, pet waste, and deicing and other chemicals in stormwater from roads, parking lots, and lawns |
| Tire Dumps | 1 | M | Tires: improper handling or management |
| Transportation Corridors | Numerous | M | Fuels and other hazardous materials: accidental leaks or spills; pesticides: over-application or improper handling |
| Underground Storage Tanks | Numerous | H | Stored materials: spills, leaks, or improper handling |
| Utility Substation Transformers | Numerous | L | Chemicals and other materials including PCBs: spills, leaks, or improper handling |
| Very Small Quantity Hazardous Waste | 3 | L | Hazardous materials and waste: spills, leaks, or improper handling or storage |
| Wastewater Treatment Plant/Collection Facility/ | 1 | M | Treatment chemicals or equipment maintenance materials: improper handling or storage; wastewater: improper |

between businesses, water suppliers, and communities enhance successful public drinking water protection practices.

- ✓ Educate local businesses on Massachusetts floordrain requirements. See brochure "Industrial Floor Drains" for more information.

5. Wastewater Treatment Plant – The Zone II contains the Erving Wastewater Treatment Plant that discharges immediately outside of the Zone II boundary into the Miller River. Activities associated with wastewater treatment involve storage and use of hazardous materials such as chlorine and fuel oil. Municipal wastewater contains contaminants including bacteria, viruses, metals and volatile chemicals. Spills, leaks or mismanagement of wastewater, hazardous materials and storm water at the plant is a potential source of contamination.

Wastewater Treatment Plant Recommendations:

- ✓ Ensure wastewater treatment facility is operated and maintained according to DEP requirements.
- ✓ Work to have stormwater drains and the drainage system around the wastewater treatment plant mapped.
- ✓ Work with plant to be sure that best management practices are used for proper handling of materials and in containing spills and leaks.
- ✓ Work with plant to be sure emergency planning includes notification for Erving Water Department.
- ✓ Ensure that the plant's underground storage tank has secondary containment and maintained properly.

6. Presence of Oil or Hazardous Material Contamination Sites – The Zone II contains DEP Tier Classified Oil and/or Hazardous Material Release Sites. Refer to the attached map and Appendix 3 for more information.

Oil or Hazardous Material Contamination Sites Recommendation:

- ✓ Monitor progress on any ongoing remedial action conducted for the known oil or contamination sites.

7. Railroad Right-of-Way – The railroad runs through the entire Zone II. Rail corridors that serve passenger and/or freight trains are a potential source of contaminant due to chemicals released during normal use, track maintenance, and

Top 5 Reasons to Develop a Local Wellhead Protection Plan

❶ Reduces Risk to Human Health

❷ Cost Effective! Reduces or Eliminates Costs Associated With:

- ♦ Increased groundwater monitoring and treatment
- ♦ Water supply clean up and remediation
- ♦ Replacing a water supply
- ♦ Purchasing water

❸ Supports municipal bylaws, making them less likely to be challenged

❹ Ensures clean drinking water supplies for future generations

❺ Enhances real estate values - clean drinking water is a local amenity. A community known for its great drinking water is a place people want to live and businesses want to locate.



accidents. Normal maintenance of a railroad right-of-way can introduce contaminants to a water supply through herbicide application for vegetation control. The over-application or improper handling of herbicides on railroad right-of-way is a potential source of contamination. Leaks or spills of transported chemicals or train/track maintenance chemicals are also potential sources of contamination to the water supply.

Railroad Right of Way Recommendations:

- ✓ Review the railroad right-of-way Yearly Operating Plan to ensure Best Management Practices are implemented with regard to vegetation control in the Zone II, and that the utility has accurate information regarding the locations of the wells and the Zone I. Review the maps the utility uses.
- ✓ Work with your local fire department to review emergency response plans. Updates to this plan should include the railroad rights-of-way including coordination with the owner/operator of the track and trains using the right-of-way. Request emergency response teams to coordinate Emergency Response Drills and practice containment of potential contaminants from train accidents within the Zone II, which should attempt to include representatives from the owner/operator of the trains utilizing the right-of-way.

8. Protection Planning - Currently, the Town does not have water supply protection controls that meet DEP's Wellhead Protection regulations 310 CMR

22.21(2). However, a consulting firm is currently in the process of completing a Wellhead Protection Plan for Erving Water Department. Protection planning protects drinking water by managing the land area that supplies water to a well. A Wellhead Protection Plan coordinates community efforts, identifies protection strategies, establishes a timeframe for implementation, and provides a forum for public participation.

Protection Planning Recommendations:

- ✓ Follow the recommendations detailed in the Zone II report and the plan when it is complete.
- ✓ Coordinate efforts with local officials to adopt controls that meet 310 CMR 22.21(2). For more information on DEP land use controls see <http://mass.gov/dep/brp/dws/protect.htm>.
- ✓ Contact Catherine Skiba of the Springfield Office of the Department to assist the Planning Board and Board of Health in presenting a bylaw to the public and promulgating regulations.

9. Agricultural Activities – There are several non-commercial farms with crop lands within the Zone II. Pesticides and fertilizers have the potential to contaminate a drinking water source if improperly stored, applied, or disposed. If not contained or applied properly, animal waste from barnyards, manure pits and field application are potential sources of contamination to ground and surface water sources.

Agricultural Activities Recommendation:

- ✓ Work with farmers in your protection areas to make them aware of your water supply and to encourage the use of a US Natural Resources Conservation Service farm plan to protect water supplies.

Other land uses and activities within the Zone II that are potential sources of contamination are included in Table 2. Refer to Appendix B for more information about these land uses. Identifying potential sources of contamination is an important initial step in protecting your drinking water sources. Further local investigation will provide more in-depth information and may identify new land uses and activities that are potential sources of contamination. Once potential sources of contamination are identified, specific recommendations like those below should be used to better protect your water supply.

Section 3: Source Water Protection Conclusions and Recommendations

Current Land Uses and Source Protection:

As with many water supply protection areas, the system Zone IIs contain potential sources of contamination. However, source protection measures reduce the risk of actual contamination, as illustrated in Figure 2. The water supplier is commended for taking an active role in promoting source protection measures in the Water Supply Protection Areas through:

- Maintaining a high awareness of the activities within the watershed

Source Protection Recommendations:

To better protect the sources for the future:

- ✓ Inspect the Zone I regularly, and when feasible, remove any non-water supply activities.
- ✓ Educate residents on ways they can help you to protect drinking water sources.
- ✓ Work with emergency response teams to ensure that they are aware of the stormwater drainage in your Zone II and to cooperate on responding to spills

What is a Zone III?

A Zone III (the secondary recharge area) is the land beyond the Zone II from which surface and ground water drain to the Zone II and is often coincident with a watershed boundary.

The Zone III is defined as a secondary recharge area for one or both of the following reasons:

1. The low permeability of underground water bearing materials in this area significantly reduces the rate of groundwater and potential contaminant flow.
2. The groundwater in this area discharges to a surface water feature such as a river, rather than discharging directly into the aquifer.

Additional Information

To help with source protection efforts, more information is available by request or online at mass.gov/dep/brp/dws including:

1. Water Supply Protection Guidance Materials such as model regulations, Best Management Practice information, and general water supply protection information.
2. MA DEP SWAP Strategy
3. Land Use Pollution Potential Matrix
4. Draft Land/Associated Contaminants Matrix

Contact Catherine V. Skiba in DEP's Springfield Office at (413) 755-2119 for more information and assistance on improving current protection measures.

Copies of this report have been provided to the public water supplier, board of health, and the town.

- or accidents.
- ✓ Request Massachusetts Highway Department to redirect the Route 63 catch basins to flow south out of the Zone II and those on Route 2 away from the well.
- ✓ Partner with local businesses to ensure the proper storage, handling, and disposal of hazardous materials.
- ✓ Monitor progress on any ongoing remedial action conducted for the known oil or contamination sites.
- ✓ Work with farmers in your protection areas to make them aware of your water supply and to encourage the use of a NRCS farm plan to protect water supplies.
- ✓ Develop and implement a Wellhead Protection Plan.

Conclusions:

These recommendations are only part of your ongoing local drinking water source protection. Additional source protection recommendations are listed in Table 3, the Key Issues above and Appendix A.

DEP staff, informational documents, and resources are available to help you build on this SWAP report as you continue to improve drinking water protection in your community. The Department's Wellhead Protection Grant Program and Source Protection Grant Program provide funds to assist public water suppliers in addressing water supply source protection through local projects. Protection recommendations discussed in this document may be eligible for funding under the Grant Program. Please note: each spring DEP posts a new Request for Response for the grant program (RFR).

Other grants and loans are available through the Drinking Water State Revolving Loan Fund, the Clean Water State Revolving Fund, and other sources. For more information on grants and loans, visit the Bureau of Resource Protection's Municipal Services web site at: <http://mass.gov/dep/brp/mf/mfpubs.htm>.

The assessment and protection recommendations in this SWAP report are provided as a tool to encourage community discussion, support ongoing source protection efforts, and help set local drinking water protection priorities. Citizens and community officials should use this SWAP report to spur discussion of local drinking water protection measures. The water supplier should supplement this SWAP report with local information on potential sources of contamination and land uses. Local information should be maintained and updated periodically to reflect land use changes in the Zone II. Use this information to set priorities, target inspections, focus education efforts, and to develop a long-term drinking water source protection plan.

Section 4: Appendices

- A. Protection Recommendations
- B. Regulated Facilities within the Water Supply Protection Area
- C. Table of Tier Classified Oil and/or Hazardous Material Sites within the Water Supply Protection Areas
- D. Additional Documents on Source Protection

Table 3: Current Protection and Recommendations

| Protection Measures | Status | Recommendations |
|--|-------------|--|
| Zone I | | |
| Does the Public Water Supplier (PWS) own or control the entire Zone I? | NO | Follow Best Management Practices (BMP's) that focus on good housekeeping, spill prevention, and operational practices to reduce the use and release of hazardous materials. |
| Is the Zone I posted with "Public Drinking Water Supply" Signs? | YES | Additional economical signs are available from the Northeast Rural Water Association (802) 660-4988. |
| Is Zone I regularly inspected? | YES | Continue daily inspections of drinking water protection areas. |
| Are water supply-related activities the only activities within the Zone I? | NO | Continue monitoring non-water supply activities in Zone Is. |
| Municipal Controls (Zoning Bylaws, Health Regulations, and General Bylaws) | | |
| Does the municipality have Wellhead Protection Controls that meet 310 CMR 22.21(2)? | NO | Continue to request that the Planning Board and Selectmen present protective bylaws for adoption at Town Meeting. The Department can assist you in this effort. |
| Do neighboring communities protect the Zone II areas extending into their communities? | N/A | |
| Planning | | |
| Does the PWS have a Wellhead Protection Plan? | NO | A consultant is currently working on a wellhead protection plan. Be sure that at a minimum, issues raised in this assessment are included in the plan. |
| Does the PWS have a formal "Emergency Response Plan" to deal with spills or other emergencies? | YES | Augment plan by developing a joint emergency response plan with fire department, MA Highway, Board of Health, DPW, and local and state emergency officials. Coordinate emergency response drills with local teams. |
| Does the municipality have a wellhead protection committee? | NO | Establish committee; include representatives from citizens' groups, neighboring communities, and the business community. Conservation Commission has volunteered to participate. |
| Does the Board of Health conduct inspections of commercial and industrial activities? | SOME | For more guidance see "Hazardous Materials Management: A Community's Guide" at www.state.ma.us/dep/brp/dws/files/hazmat.doc |
| Does the PWS provide wellhead protection education? | NO | Aim efforts at commercial, industrial and municipal uses within the Zone II. |

APPENDIX B: REGULATED FACILITIES WITHIN THE WATER SUPPLY PROTECTION AREA

DEP Permitted Facilities

| DEP Facility Number | Facility Name | Street Address | Town | Permitted Activity | Activity Class | Facility Description |
|---------------------|------------------------------------|-----------------------|--------|-------------------------------------|----------------------------------|-----------------------------|
| 32684 | Commonwealth of Massachusetts DPW | Route 2 | ERVING | Hazardous Waste Generator | Very Small Quantity | Highway Depot |
| 1020 | Erving Waste Water Treatment Plant | 16 Public Works Blvd. | ERVING | Hazardous and Oil Wastes Generator | Very Small Quantity | Waste Water Treatment Plant |
| | | | | Surface Water Discharge (NPDES) | Major | |
| 32684 | Massachusetts Highway Department | Route 2 | ERVING | Non Permitted Action (Non-Notifier) | Requires change of use or permit | Maintenance Depot |
| | | | | Hazardous Waste Generator | Very Small Quantity | |
| | | | | Sludge | Landfill | |
| *MAV000003 260 | Town of Erving DPW | River Road | ERVING | Oil Waste Generator | Small Quantity | Maintenance Depot |

*Massachusetts Identification Number

For information on underground storage tanks, visit the Massachusetts Department of Fire Services web site: <http://www.state.ma.us/dfs/ust/ustHome.htm>

Note: This appendix includes only those facilities within the water supply protection area(s) that meet state reporting requirements and report to the appropriate agencies. Additional facilities may be located within the water supply protection area(s) that should be considered in local drinking water source protection planning.

APPENDIX C – Table of Tier Classified Oil and/or Hazardous Material Sites within the Water Supply Protection Areas

DEP's datalayer depicting oil and/or hazardous material (OHM) sites is a statewide point data set that contains the approximate location of known sources of contamination that have been both reported and classified under Chapter 21E of the Massachusetts General Laws. Location types presented in the layer include the approximate center of the site, the center of the building on the property where the release occurred, the source of contamination, or the location of an on-site monitoring well. Although this assessment identifies OHM sites near the source of your drinking water, the risks to the source posed by each site may be different. The kind of contaminant and the local geology may have an effect on whether the site poses an actual or potential threat to the source.

The DEP's Chapter 21E program relies on licensed site professionals (LSPs) to oversee cleanups at most sites, while the DEP's Bureau of Waste Site Cleanup (BWSC) program retains oversight at the most serious sites. This privatized program obliges potentially responsible parties and LSPs to comply with DEP regulations (the Massachusetts Contingency Plan – MCP), which require that sites within drinking water source protection areas be cleaned up to drinking water standards.

For more information about the state's OHM site cleanup process to which these sites are subject and how this complements the drinking water protection program, please visit the BWSC web page at <http://www.state.ma.us/dep/bwsc>. You may obtain site -specific information two ways: by using the BWSC Searchable Sites database at <http://www.state.ma.us/dep/bwsc/sitellst.htm>, or you may visit the DEP regional office and review the site file. These files contain more detailed information, including cleanup status, site history, contamination levels, maps, correspondence and investigation reports, however you must call the regional office in order to schedule an appointment to view the file.

The table below contains the list of Tier Classified oil and/or Hazardous Material Release Sites that are located within your drinking water source protection area.

Table 1: Bureau of Waste Site Cleanup Tier Classified Oil and/or Hazardous Material Release Sites (Chapter 21E Sites) - Listed by Release Tracking Number (RTN)

| RTN | Release Site Address | Town | Contaminant Type |
|------------|-------------------------------------|-------------|-------------------------|
| 1-0012574 | Route 2 | Erving | Oil |
| 1-0000071 | Route 2 | Erving | |
| 1-0010122 | Route 2, East of French King Bridge | Erving | Oil |
| 1-0001000 | Route 2 | Erving | Gasoline, Oil |